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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,309	08/18/2003	Mark Justin Moore	56162.000416	1974

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EXAMINER
PRICE, NATHAN E

ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/642,309	MOORE, MARK JUSTIN
	Examiner	Art Unit	
	Nathan Price	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>18 August 2003</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-34</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>18 August 2003</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>11/18/2003; 05/13/2005</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 34 are pending.

Oath/Declaration

2.   The oath or declaration is defective. A new oath or declaration in compliance

with 37 CFR 1.67(a) identifying this application by application number and filing date is

required. See MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because:
> It does not state that the person making the oath or declaration believes the
> named inventor or inventors to be the original and first inventor or inventors of
> the subject matter which is claimed and for which a patent is sought.

Drawings

3.   New corrected drawings in compliance with 37 CFR 1.121(d) are required in this

application because the current drawings are not clear. Applicant is advised to employ

the services of a competent patent draftsperson outside the Office, as the U.S. Patent

and Trademark Office no longer prepares new drawings. The corrected drawings are

required in reply to the Office action to avoid abandonment of the application. The

requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1 – 5, 7 – 12, 16 – 22, 24 – 29, 33 and 34 are rejected under 35

U.S.C. 102(b) as being anticipated by Silberschatz (see PTO-892 mailed with this Office

Action).

5.   As to claim 1, Silberschatz teaches a method for managing shared resources in a

computer system, comprising:

establishing and registering a plurality of objects in response to requests from

hardware or software associated with the computer system (§22.8.1; p. 753 ¶1);

the objects including at least one type, at least one attribute, and a handle

(§22.3.2 ¶2; §22.4.1 ¶1; §22.8.1); and

manipulating the plurality of objects to effect processing and exchange of

information (§18.2 ¶1 – 2).

6.   As to claim 2, Silberschatz teaches:

establishing a plurality of task objects (§22.3.2 ¶2 – 5);

establishing a plurality of message pool objects (§4.5.2.2 ¶1; §4.5.4);

allocating messages from at least one free message pool object in response to

requests from one or more task objects, wherein the messages include blocks of

information that can be passed to other task objects (§4.5.2.2 ¶1; §4.5.4);

exchanging the messages between the plurality of task objects, thereby effecting

requests for processing (§4.5.2.2 ¶1; §4.5.4); and

returning the messages to the free message pool object upon completion of

processing (§4.5.2.2 ¶1; §4.5.4).

7.   As to claim 3, Silberschatz teaches:

the plurality of task objects include at least a task type and an interface type, the

interface type enabling request and release of messages (p. 111 ¶1 – 2); and

the plurality of message pool objects include at least a pool type and an interface

type (§4.5.2.2 ¶1; p. 111 ¶1 – 2).

8.   As to claim 4, Silberschatz teaches exchanging the messages between the

plurality of task objects, thereby effecting requests for processing further comprises at

least one of: putting a message to an interface, getting a message from an interface,

and waiting for a message to arrive on an interface (§4.5.3).

9.   As to claim 5, Silberschatz teaches: receiving, at a message pool interface, a

request by a first task object interface for a message allocation; allocating a message

from the free message pool to the first task object; sending the message from the first

task object interface to a second task object interface; performing processing by the

second task object in response the message receipt; and returning the message to the

message pool interface upon completion of processing (§4.5.2.2 ¶1; §4.5.4).

10.   As to claim 7, see the rejection of claim 5 for explanation regarding limitations not specifically addressed in this rejection. Silberschatz teaches sending an arm interrupt message from the first task object interface to a interrupt object interface; disabling an interrupt with the arm interrupt message by the interrupt object; and returning the message to the first task object interface (§4.5.4; p. 407 ¶1 – 2; p. 409 ¶3 – 4).

11.   As to claim 8, Silberschatz teaches: defining a plurality of top-level tasks from the plurality of objects; providing each of the plurality of top-level tasks with a private memory resource; enabling access of the private memory resource to any subtask created by a top-level task (§4.3.1 ¶1 – 2).

12.   As to claim 9, Silberschatz teaches: allocating a memory space to a parent task; establishing at least one subtask to the parent task; enabling access of the memory space to the at least one subtask; and preventing access of the memory space to tasks not associated with the parent task (§4.3.1 ¶1 – 2; p. 37 ¶1).

13.   As to claim 10, Silberschatz teaches: allocating a memory space to a subtask; and preventing access of the memory space to a parent task of the subtask (§4.3.1 ¶1 – 2; p. 37 ¶1).

14.   As to claim 11, Silberschatz teaches: establishing an object instance for each of

the plurality of objects; and establishing an object handle for each object instance, the

object handle referencing a data structure used to implement the object instance

(§22.3.2 ¶2; §22.4.1).

15.   As to claim 12, Silberschatz teaches the object handle is a pointer value (§22.4.1

¶1).

16.   As to claim 16, Silberschatz teaches:

        organizing the plurality of objects as files in a global file system, wherein files in

the system contain references to objects in memory (§11.1.2 ¶1; Fig. 11.2; §18.2); and

        referencing each of the plurality of objects in relation to a plurality of top level

object types (§11.3.3; §4.3.1 ¶1).

17.   As to claim 17, Silberschatz teaches the plurality of top level object types include

tasks, interfaces, pools, mutexes, semaphores, interrupts, and memory (§18.2; §22.3.2

¶2 – 5).

18.   As to claims 18 – 22, 24 – 29, 33 and 34, see the rejection of claims 1 – 5, 7 –

12, 16 and 17.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19.   Claims 6 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Silberschatz.

20.   As to claims 6 and 23, see the rejection of claim 5 for explanation regarding

limitations not specifically addressed in this rejection. Silberschatz teaches or at least

implies returning the message to the first task object interface upon completion of

processing and returning the message from the first task object interface to the

message pool interface (§4.5.7 ¶1 – 4). Silberschatz at least implies that replies can

use the same object in shared memory.

21.   Claims 13 – 15 and 30 – 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Silberschatz as applied to claims 1, 11, 18 and 28 above, and further

in view of Jaworski (see PTO-892 mailed with this Office Action).

22.   As to claims 13 and 30, Silberschatz fails to specifically teach derived object

types as claimed. However, Silberschatz combined with Jaworski teaches: establishing

at least one derived object type, based upon the object instance; establishing object

attributes for the at least one derived object type; and accessing any established object attributes with the object handle (Silberschatz: §22.3.2 ¶2; §22.4.1 ¶1; Jaworski: p. 91 ¶7). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because both teach Java and programming techniques.

23.   As to claims 15 and 32, see the rejection of claims 11, 13, 28 and 30.

24.   As to claims 14 and 31, Jaworski teaches appending data structures associated with the at least one derived object type to the data structure used to implement the object instance (p. 94 ¶3).
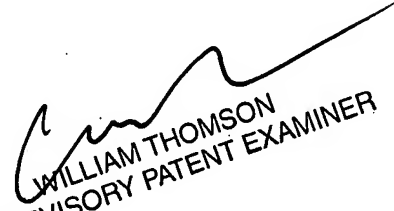
Conclusion

25.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:30am - 3:00pm, Monday - Friday.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER